AN 1994-228699 JAPIO
TI HYDROGEN STORAGE ALLOY
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AB PURPOSE: To produce a hydrogen storage alloy remarkably improved in the amt. of hydrogen to be occluded, plateau properties, response characteristics to the change of hydrogen pressure or the like, in a hydrogen storage alloy constituted of Ti, V and Ni, by prescribing each content of Ti, V and Ni.
CONSTITUTION: In a hydrogen storage alloy expressed by the general formula: Ti<SB>x</SB>V<SB>y</SB>Ni<SB>z</SB>, the compsn. (x) of Ti, the compsn. (y) of V and the compsn. (z) of Ni are limited to the range surrounded by the A point in th figure: Ti<SB>5</SB>V<SB>90</SB>Ni<SB>5</SB>, the B point: Ti<SB>5</SB>V<SB>75</SB>Ni<SB>20</SB>, the C point: Ti<SB>30</SB>V<SB>50</SB>Ni<SB>30</SB> and the D point: Ti<SB>30</SB>V<SB>65</SB>Ni<SB>5</SB> (namely, by atom, 5%<=x<=30%, 50%<=y<=90% and 5%<=z<=20%). Moreover, the range surrounded by the E point: Ti<SB>25</SB>V<SB>65</SB>Ni<SB>10</SB>, the F point: Ti<SB>15</SB>V<SB>75</SB>Ni<SB>10</SB>, the G point: Ti<SB>15</SB>V<SB>67.5</SB>Ni<SB>17.5</SB> and the H point: Ti<SB>25</SB>V<SB>57.5</SB>Ni<SB>17.5</SB> (namely, 15%<=x<=25%, 57.5%<=y<=75% and 10%<=z<=17.5%) is preferably regulated. In this way, the hydrogen storage alloy used for the hydrogen occlusion electrode of an alkali secondary battery or the like can be obtd.